Ontario

Ministry of Health and Long-Term Care
Public Health Division

Ontario Influenza Bulletin
2005-2006 Season

SURVEILLANCE WEEK 10 (March 5 - 11, 2006)

This issue of the Ontario Influenza Bulletin provides information on the surveillance period from March 5 – 11, 2006. The analysis for this issue occurred on Wednesday March 15, 2006, therefore all data is current to that date.

During week 10 of 2006, influenza activity in Ontario was higher compared to that of the previous week. Sixty two sporadically occurring cases of influenza (20 influenza A , 35 influenza B and 7 unspecified) were reported through iPHIS. In addition, there were 9 institutional outbreaks (5 influenza A and 4 influenza B) reported. The highest level of influenza activity in Ontario was 'widespread activity' reported from Toronto and Southwest regions, although five individual health units from other regions also reported 'widespread activity'. Overall 'localized activity' were reported from Eastern, Central East and Central West regions. North East and North West region regions reported 'sporadic activity'.

When entering laboratory confirmed influenza cases in iPHIS, please enter the "type" (i.e. A vs. B) of influenza reported. Your attention to this matter is most appreciated

For a definition of influenza-like illness (ILI) activity levels and links to websites providing current influenza information from other sources, please refer to the attached Appendix. If you would like to provide feedback on the Bulletin, please contact Shafiq Chowdhury (shafiq.chowdhury@moh.gov.on.ca, 416-327-7807) or Anne-Luise Winter (anne-luise.winter@moh.gov.on.ca, 416-327-7301).

Table 1: Summary of laboratory-confirmed influenza cases and institutional outbreaks, by health regions, March 5 - 11, 2006.

Lab-confirmed Influenza cases*	HEALTH REGION							TOTAL
	North West	North East	Eastern	Central East	Toronto	South West	Central West	
Influenza A	0	1	1	10	1	2	5	20
Influenza B	0	4	0	9	7	4	11	35
Influenza A & B	0	0	0	0	0	0	0	0
Unspecified †	0	6	0	0	0	0	1	7
Total new cases	***0***	***11***	***1***	***19***	***8***	***6***	***17***	***62***
Institutional influenza outbreaks‡	0	0	2	3	1	2	1	9

SOURCE: MOHLTC [iPHIS, Health Unit Reports to PHD, Provincial Appendix D and Appendix E Database]

* Includes reports of sporadically occurring influenza through iPHIS, as well as cases in institutional outbreaks, with dates of onset in the surveillance period.

† Type of influenza, i.e. A vs B, was not specified in iPHIS (i.e. Influenza subtype dropdown menu left blank or reported as "Unspecified").

‡ Laboratory-confirmed outbreaks in institutions during the surveillance period.

Table 2: Confirmed* cases of influenza by health unit & health region, with an episode date† between March 5 - 11, 2006.

Region	Health Unit	Laboratory-Confirmed Influenza			
		Influenza A	Influenza B	Unspecified‡	TOTAL
North West	Northwestern	0	0	0	0
	Thunder Bay District	0	0	0	0
	TOTAL NORTH WEST	**0**	**0**	**0**	**0**
North East	Algoma	1	1	0	2
	North Bay Parry Sound District	0	0	6	6
	Porcupine	0	0	0	0
	Sudbury & District	0	3	0	3
	Timiskaming	0	0	0	0
	TOTAL NORTH EAST	**1**	**4**	**6**	**11**
Eastern	Eastern Ontario	0	0	0	0
	Hastings & Prince Edward Counties	0	0	0	0
	Kingston, Frontenac, Lennox & Addington	0	0	0	0
	Leeds, Grenville & Lanark	0	0	0	0
	Ottawa	0	0	0	0
	Renfrew	1	0	0	1
	TOTAL EASTERN	**1**	**0**	**0**	**1**
Central East	Durham Region	0	0	0	0
	Haliburton, Kawartha, Pine Ridge District	3	3	0	6
	Peterborough County-City	0	0	0	0
	Simcoe Muskoka District	3	1	0	4
	York Region	0	1	0	1
	Peel Region	4	4	0	8
	TOTAL CENTRAL EAST	**10**	**9**	**0**	**19**
Toronto	Toronto	1	7	0	8
	TOTAL TORONTO	**1**	**7**	**0**	**8**
South West	Grey-Bruce	0	0	0	0
	Elgin-St. Thomas	0	0	0	0
	Huron County	0	2	0	2
	Chatham-Kent	0	0	0	0
	Lambton	0	0	0	0
	Middlesex-London	2	2	0	4
	Oxford	0	0	0	0
	Perth District	0	0	0	0
	Windsor-Essex County	0	0	0	0
	TOTAL SOUTHWEST	**2**	**4**	**0**	**6**
Central West	Brant	0	0	0	0
	Haldimand-Norfolk	0	0	0	0
	Hamilton	4	11	0	15
	Niagara Region	0	0	1	1
	Halton Region	1	0	0	1
	Waterloo Region	0	0	0	0
	Wellington-Dufferin-Guelph	0	0	0	0
	TOTAL CENTRAL WEST	**5**	**11**	**1**	**17**
	TOTAL ONTARIO	**20**	**35**	**7**	**62**

SOURCE: MOHLTC [iPHIS, Health Unit Reports to PHD]

* Confirmed cases of influenza can include laboratory-confirmed cases and epi-linked cases.

† Episode Date for a case corresponds to the earliest date on record for the case according to the iPHIS hierarchy (Symptom Date > Clinical Diagnosis Date > Specimen Collection Date > Lab Test Date > Reported Date)

‡ Type of influenza, i.e. A vs B, was not specified in iPHIS (i.e. Influenza subtype dropdown menu left blank or reported as unspecified)

Table 3: Cumulative* confirmed† cases of influenza by health unit & health region, September 1, 2005 to March 11, 2006.

Region	Health Unit	Laboratory-Confirmed Influenza			
		Influenza A	Influenza B	Unspecified‡	TOTAL
North West	Northwestern	0	1	0	1
	Thunder Bay District	0	0	0	0
	TOTAL NORTH WEST	**0**	**1**	**0**	**1**
North East	Algoma	1	1	0	2
	North Bay Parry Sound District	0	0	7	7
	Porcupine	0	1	0	1
	Sudbury & District	1	5	0	6
	Timiskaming	0	0	0	0
	TOTAL NORTH EAST	**2**	**7**	**7**	**16**
Eastern	Eastern Ontario	1	0	0	1
	Hastings & Prince Edward Counties	7	6	0	13
	Kingston, Frontenac, Lennox & Addington	3	3	0	6
	Leeds, Grenville & Lanark	1	0	0	1
	Ottawa	7	0	0	7
	Renfrew	4	0	0	4
	TOTAL EASTERN	**23**	**9**	**0**	**32**
Central East	Durham Region	4	0	0	4
	Haliburton, Kawartha, Pine Ridge District	11	10	0	21
	Peterborough County-City	1	0	0	1
	Simcoe Muskoka District	15	13	0	28
	York Region	10	25	0	35
	Peel Region	17	22	0	39
	TOTAL CENTRAL EAST	**58**	**70**	**0**	**128**
Toronto	Toronto	49	46	1	96
	TOTAL TORONTO	**49**	**46**	**1**	**96**
South West	Grey-Bruce	4	11	0	15
	Elgin-St. Thomas	1	0	0	1
	Huron County	2	8	0	10
	Chatham-Kent	0	0	1	1
	Lambton	0	0	0	0
	Middlesex-London	10	13	0	23
	Oxford	3	1	0	4
	Perth District	1	4	0	5
	Windsor-Essex County	7	0	0	7
	TOTAL SOUTHWEST	**28**	**37**	**1**	**66**
Central West	Brant	0	0	0	0
	Haldimand-Norfolk	0	2	0	2
	Hamilton	34	37	0	71
	Niagara Region	3	4	2	9
	Halton Region	13	7	0	20
	Waterloo Region	14	14	0	28
	Wellington-Dufferin-Guelph	1	7	0	8
	TOTAL CENTRAL WEST	**65**	**71**	**2**	**138**
	TOTAL ONTARIO	***225***	***241***	***11***	***477***

SOURCE: MOHLTC [iPHIS, Health Unit Reports to PHD]
* Cumulative case counts include late reports and records that are otherwise reconciled. Therefore, cumulative counts may not equal new cases plus previous cumulative value.
† Confirmed cases of influenza can include laboratory-confirmed cases and epi-linked cases.
‡ Type of influenza, i.e. A vs B, was not specified in iPHIS (i.e. Influenza subtype dropdown menu left blank or reported as unspecified)

Influenza Subtype(s):

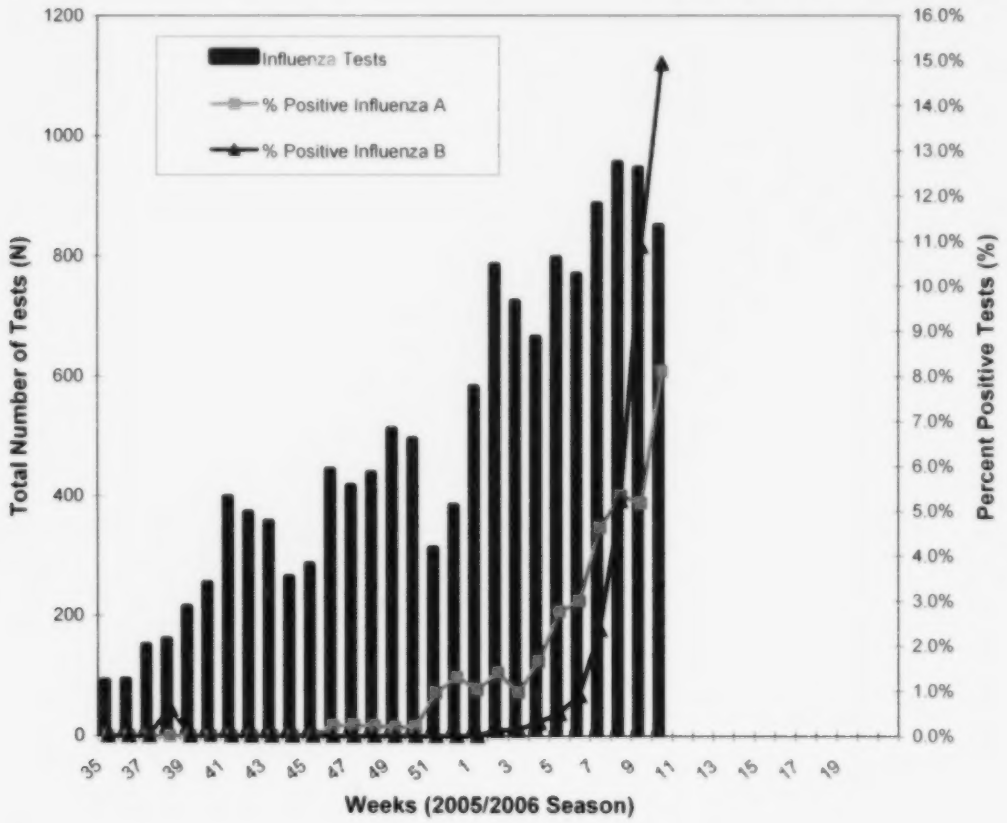
During Week 10, 3,087 isolates were received by the Public Health Agency of Canada, with a total of 277 and 244 testing positive for influenza A and B respectively. The majority of the influenza A isolates (69) were from Ontario (24.9%), Quebec 67 (24.2%), Saskatchewan 58 (20.9%) and Alberta 55 (19.9%). The majority of the influenza B isolates (127) were from Ontario (52.1%), British Columbia 45 (18.4%) Alberta 34 (13.9%) and Saskatchewan 28 (11.5%).*

Since the start of the 2005-2006 influenza season, the National Microbiology Laboratory (NML) has antigenically characterized 394 influenza viruses: 202 A/California/07/2004(H3N2)-like viruses; 7 A/New Caledonia/20/1999(H1N1)-like viruses; 136 B/Hong Kong/330/2001-like and 44 B/Malaysia/2506/2004-like viruses both belonging to the B/Victoria/2/1987 lineage; and 5 B/Shanghai/361/2002-like viruses belonging to the B/Yamagata/16/1988 lineage. The B/Malaysia/2506/2004-like strain is the WHO-recommended influenza B component for the Northern Hemisphere 2006-2007 influenza vaccine **

Note: The 2005-2006 season Canadian vaccine contains an A/ New Caledonia/20/1999(H1N1)-like, an A/ California/7/2004(H3N2)-like, and a B/Shanghai/361/2002-like virus strain.

* These data have been obtained from the Respiratory Virus Detection table of Public Health Agency of Canada for week 10, 2006
** These data have been obtained from the FluWatch report of the Public Health Agency of Canada for week 9 (Feb 26 – March 4) 2006

Figure 1: Total number of influenza tests performed and percent of positive tests in Ontario reported to the Centre for Infectious Disease Prevention and Control (CIDPC), by report week*.



Source: Public Health Agency of Canada
* Total numbers reported include late reports; therefore totals may not be equal to the sum of the weekly numbers.

Note: Cumulative numbers for season to date are available through FluWatch: http://www.phac-aspc.gc.ca/fluwatch/

Table 4: Institutional respiratory outbreaks in Ontario, September 1, 2005 to March 11, 2006

Institutional Respiratory Infection Outbreaks

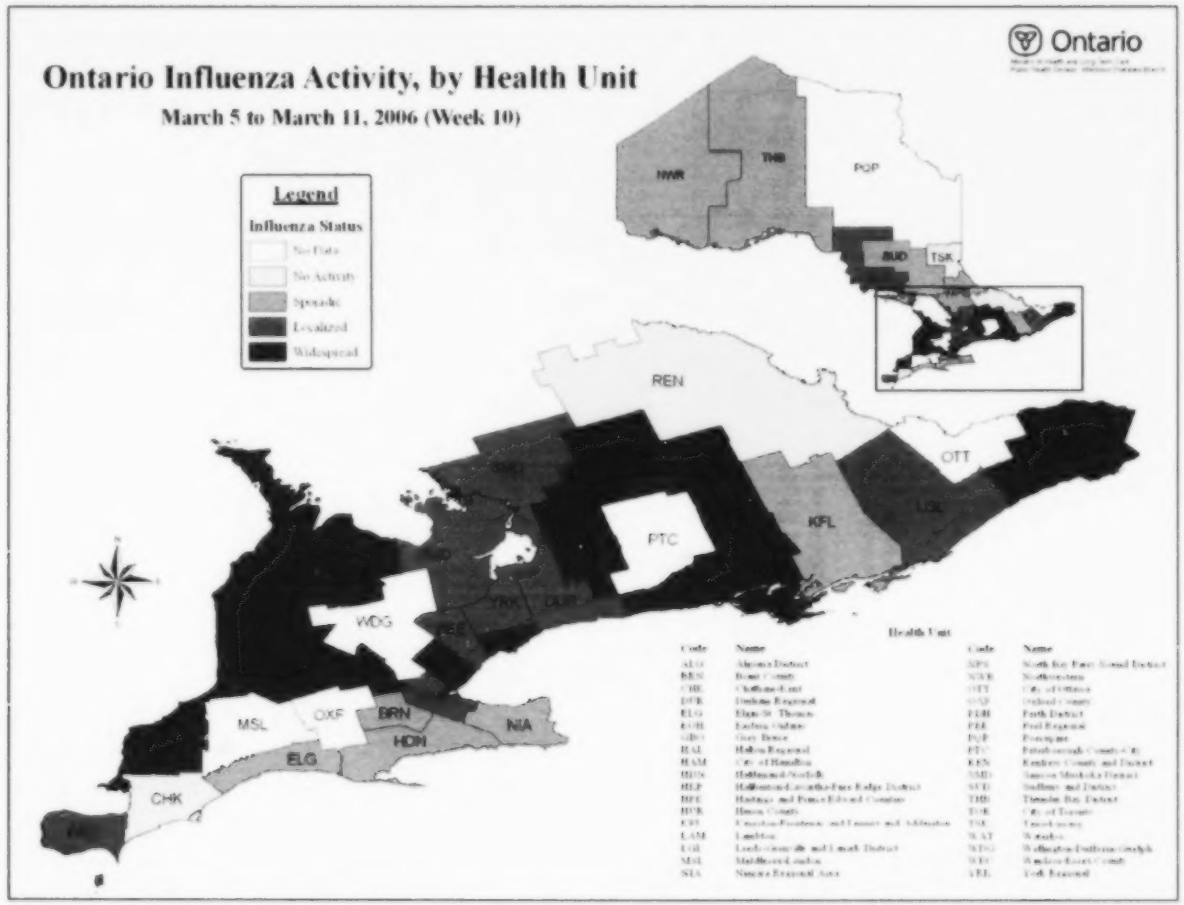
New Outbreaks*	**N**	**% (of outbreaks)**
Influenza A	5	23.8
Influenza B	4	19.1
Influenza A and B	0	0.0
Parainfluenza (All types)	1	4.8
Other organisms	0	0.0
No organism identified	11	52.3
TOTAL	***21***	***100***
Total Respiratory Infection Outbreaks, Season to Date**	**N**	**% (of outbreaks)**
Influenza A	39	8.1
Influenza B	9	1.9
Influenza A and B	1	0.2
Parainfluenza (All types)	39	8.1
Other organisms	71	14.7
No organism identified	323	67.0
TOTAL	***482***	***100***
Types of Institutions (All Outbreaks)	**N**	**% (of outbreaks)**
Long-Term Care Homes	406	84.2
Hospitals	25	5.2
Retirement Homes	48	10.0
Other	3	0.6
TOTAL	***482***	***100***
Outbreak Related Complications (All Outbreaks)	**N**	**% (of cases)**
Deaths		
Residents	147	2.6
Staff	0	0.0
Pneumonia (Chest x-ray confirmed)		
Residents	266	4.8
Staff	19	1.1
Hospitalizations		
Residents	298	5.3
Staff	10	0.6

SOURCE: MOHLTC [Provincial Appendix D and Appendix E Database]

** Season to date includes all outbreaks in which the date of onset of the first case occurred between September 1, 2005 and March 11, 2006.

* New outbreaks are those in which the date of onset of the first case occurred in the current surveillance period (March 5 -11, 2006)

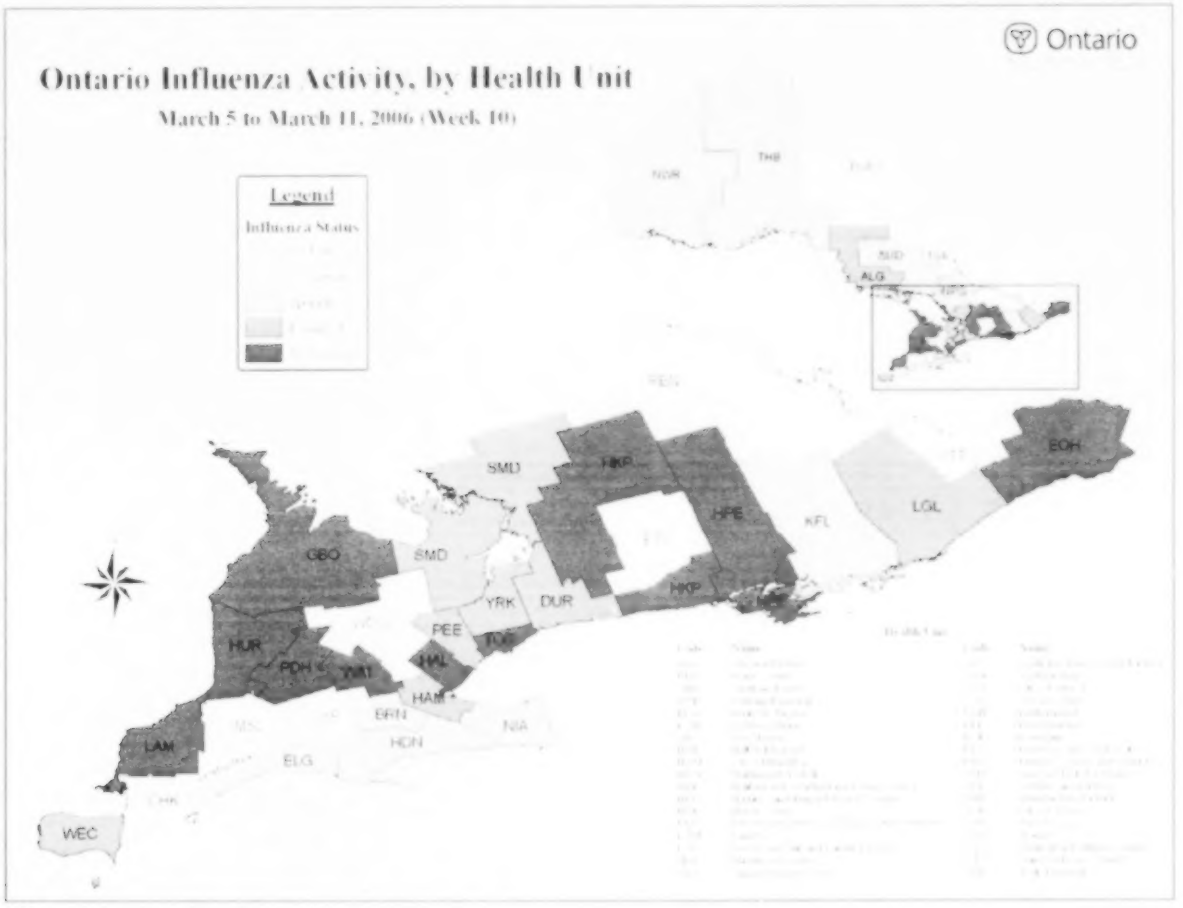
Figure 2: Influenza activity* in Ontario by health unit, Week 10 (March 5 - 11) 2006.



SOURCE: MOHLTC [Provincial Influenza Activity Report (Appendix C) Database]

* Influenza activity levels, as represented on this map, are assigned by local public health units and reported to the MOHLTC by the Tuesday following the end of the surveillance week at 4 pm. Activity levels are assigned based on laboratory confirmations, ILI reports from various sources, and laboratory-confirmed institutional outbreaks. Please refer to detailed definitions for the 2005-2006 season included in the Appendix.

Figure 2: **Influenza activity* in Ontario by health unit, Week 10 (March 5 - 11) 2006.**



SOURCE: MOHLTC [Provincial Influenza Activity Report (Appendix C) Database]

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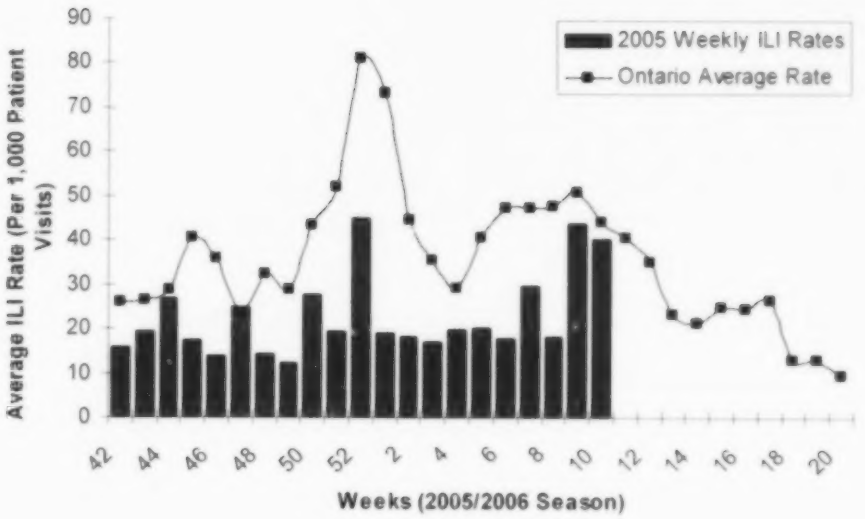
Figure 3: Average influenza-like illness consultation rate (per 1,000 patient visits) reported by sentinel physicians* in Ontario in 2005- 2006 season, by report week, Compared to Ontario average† (1996/96 to 2004/05 seasons).



Source: Public Health Agency of Canada
* Sentinel physician information is reported to Public Health Agency of Canada.
†No data available for mean rate in previous years for weeks 21 to 39 (1996-1997 through 2002-2003 seasons). During weeks 20-39, 2002-2003/2004-2005 seasons, ILI is reported once every two weeks, on even weeks only.

Table 5: Average Influenza-like illness consultation rate (per 1,000 patient visits) reported by Sentinel Physicians* in Ontario, by age group and postal code for week 10 (March 5-11), 2006.

Postal Code	0 – 4	5 – 19	20 – 64	65 +	Unknown
K0C1A0	0	0	0	0	0
K2P1V3	0	0	0	0	0
K1J9M2	0	0	0	0	0
K2P1V3	0	0	0	0	0
K7H2W6	0	0	0	0	0
K7L1E9	0	0	0	0	0
K0L1C0	0	1	2	0	0
K0K1H0	1	1	0	0	0
L1A3W4	0	0	0	0	0
K0M1A0	0	0	0	0	0
L1B1H8	0	0	0	0	0
L4L4Y7	0	0	0	0	0
L4J7Y3	0	0	0	0	0
L4G3W3	0	0	1	0	0
M4X1W4	0	0	0	0	0
M4E1V8	0	0	0	0	0
M8Y1W3	0	0	0	0	0
M2K1E1	0	0	0	0	0
M9W6N5	0	0	2	0	0
M9W4L6	2	0	2	0	0
M8V2Z5	0	0	0	0	0
L5J2W4	0	2	1	0	0
L5J2W4	0	2	1	0	0
L5G3H5	0	0	0	0	0
L4Y2N8	0	0	1	1	0
L9W1G2	0	0	0	0	0
N1H4G2	0	0	0	0	0
L7R1M6	0	0	0	0	0
L9M1V1	0	1	0	0	0
L9H2G2	1	2	2	0	0
L0R1H0	0	0	1	0	0
E2E1Y3	0	0	0	0	0
L0R1B0	0	2	3	1	0
N3C2E2	0	5	1	0	0
N2G1P2	0	0	0	0	0
N4W1P9	0	1	0	0	0
N5H1K9	0	0	0	0	0
N0P2C0	0	1	2	0	0
N8X2G3	0	0	5	1	0
N0M1T0	0	0	0	0	0
N6C2R5	0	0	0	0	0
N0M1L0	3	5	3	0	0
N0G1L0	0	0	0	0	0
N0C1E0	0	0	0	0	0
L4R4P4	0	0	0	0	0
K0J1B0	0	1	0	0	0
P0H2H0	0	0	0	0	0
P0A1C0	0	0	0	0	0
P0P1S0	0	0	0	0	0
P3E5V5	0	0	0	0	0
P7E1H5	0	0	0	0	0
P0T2E0	0	0	2	0	0
P0W1E0	0	0	0	0	0
P8N2Z6	0	0	0	0	0
ILI Sum	7	24	29	3	0
ILI Consultation Rate (per 1,000 patient visits)	64.8	132.6	34.0	7.1	0.0

Source: Public Health Agency of Canada
* Sentinel physician information is reported to the Public Health Agency of Canada
Note: The small numbers of sentinel physicians reporting at the local level make the ILI rates unstable. Please interpret these data correspondingly.

FURTHER INFORMATION

1. Ontario Ministry of Health and Long-Term Care
   Previous issues of the Ontario Influenza Bulletin can be accessed at:
   www.health.gov.on.ca/english/providers/program/pubhealth/flu/flu_04/flubul_mn.html

2. Public Health Agency of Canada
   Issues of FluWatch can be accessed at:
   www.phac-aspc.gc.ca/fluwatch/

3. United States Centers for Disease Control and Prevention
   www.cdc.gov/flu/

APPENDIX

Definitions for influenza activity levels:

No Data: No activity report corresponding to the surveillance week was received at the Ministry of Health and Long-Term Care Call Centre by the Tuesday (at 4 p.m.) following the end of the surveillance period.
No Activity = No ILI and no laboratory-confirmed cases* or outbreaks occurred.
Sporadic: sporadically occurring ILI **AND** laboratory-confirmed influenza* with NO outbreaks detected within the influenza surveillance region†
Localized: sporadically occurring ILI **AND** laboratory-confirmed influenza* together with outbreaks of ILI in schools and worksites or laboratory confirmed influenza in residential institutions occurring in less than 50% of the influenza surveillance region(s)
Widespread: sporadically occurring ILI **AND** laboratory-confirmed influenza* together with outbreaks of ILI in schools and worksites or laboratory-confirmed influenza in residential institutions occurring in greater than or equal to 50% of the influenza surveillance region(s)

* Confirmation of influenza within the surveillance region at any time within the prior four weeks.
† Sub-regions within the province or territory as defined by the provincial/territorial epidemiologist

Influenza-Like Illness (ILI) Definitions:

A) ILI in the general population:

Acute onset of respiratory illness with fever and cough and with one or more of the following - sore throat, arthralgia, myalgia, or prostration which could be due to influenza virus. In children under 5, gastrointestinal symptoms may also be present. In patients under 5 or 65 and older, fever may not be prominent.

B) ILI/Influenza outbreaks:

Schools and work sites: greater than 10% absenteeism on any day most likely due to ILI.

Residential institutions: two or more cases of ILI within a seven-day period, including at least one laboratory-confirmed case.